SCIENCE.—SUPPLEMENT.

FRIDAY, MARCH 19, 1886.

VIEWS OF ECONOMISTS ON THE SILVER PROBLEM.

I.

WHAT laws should congress enact, regulating the coinage of silver at the present juncture? To this question, nakedly put, I am obliged to answer that I do not know. The reason I do not know is, that I am not in possession of the minute knowledge necessary to enable me to give a satisfactory answer to the question. It is extremely necessary to the smooth and orderly course of business that the current dollar, when measured in terms of human labor, should vary as little as possible from year to year and from generation to generation. If we compare the value of the gold in a gold dollar with the value of the silver in a silver dollar, we shall find that the former, instead of being equal to or less than the latter, as it was up to 1873, is twenty-five per cent greater. Taking gold as a standard, the value of the silver in a dollar has fallen twenty per cent. Taking silver as the standard, gold has appreciated twenty-five per cent. If the silver dollar is the least variable one, then silver coinage should be free, provided that the proper quantity of silver is put into the dollar; otherwise gold should be the standard. Thus the first question which meets us is whether the silver or the gold standard is the least variable, when measured in terms of human labor.

Now, this is a question of fact, to be settled, not by speculation or by abstract reasoning, but by a careful and exhaustive analysis of manufactures, prices, wages, and industry, not only in this country, but in the leading countries of the world. Without this analysis, nothing I could say on the subject would be final. It would take me a year, and would require help from a great number of experts, to make the necessary statistical investigation; and I have not the time to do this. When considering the problem, I feel as if on board a ship in a narrow channel, on a dark night, listening to a discussion among the sailors as to whether they shall steer to the right or left. If they ask me what they shall do, I answer, that the only way I see to proceed is to take soundings from point to point until they determine, as nearly as possible, where the middle of the channel is, and then to follow it as closely as they can.

Have I, then, no impression or views whatever on the subject? I reply, that I have no views so well founded but that I would like better ones before advising action. My impressions I am ready to give, with the proviso that I retain the right to reverse them to-morrow if any new light of a nature to change them is thrown on the subject.

Firstly, to begin with the subject in its more remote and general bearings, I am of opinion that a dollar composed of a fixed weight of either of the precious metals will not serve the purposes of the world's business indefinitely. The increase of wealth must, it seems to me, make gold more valuable, unless the supply is continually increased. Without being able to give an exhaustive investigation of the subject, the impression which I have derived from statistical tables is, that the consumption of gold in the arts the world over is now fully equal to the annual supply, and is continually increasing. If the latter is not increased, the former will speedily exceed it, and then the stock of gold on hand, and available for money, will slowly diminish. The necessary result will be an appreciation harmful to the standard.

Secondly, although I look upon this appreciation as inevitable at some future time, the weight of evidence seems to me to be in favor of the view that it has not yet commenced, or at least has not taken place in a serious degree. It is true that this statement runs counter to the impressions which one derives from tables of prices, and especially from the tables published from time to time by the London *Economist;* but there is a defect in these tables which has not been sufficiently taken account of. The prices are mostly those of metals, grains, and other comparatively raw materials, which are made and sold on a large scale. Now, the production of these staples has been enormously increased in late years by the opening-up of new sources of supply, and the invention of improved methods of extraction and production. Besides, they represent but a small fraction of the total product of human labor. They cannot, therefore, afford us the required basis of comparison.

What we should principally depend upon are those articles in whose production no great improvement has been made. We should also take

them in proportion to the quantities produced or consumed. About a year ago I made an approximate determination of this kind, with the following result: a certain collection of the necessaries of life, representing a nearly fixed amount of human labor, had the following values at different periods: [1] —

In 1876 the collection was worth	$111.66
" 1880 " " " "	98.27
" 1884 " " " "	101.33

Assuming that the absolute value of the above-mentioned collection of the necessaries of life, measured in terms of human labor, remains invariable, and that it is the standard dollar which changes value, then we see that the latter did really appreciate between 1876 and 1880, but slightly depreciated between 1880 and 1884.

Another test is afforded by the price of a house, because, taking it altogether, it requires as much labor to build a house now as it did ten or twenty years ago. So far as I can learn, the cost of such a building is higher now than it was ten years ago, and has not diminished any for several years past. I conclude, therefore, that house-builders in general can, on the average, earn as many standard gold dollars now in a day as they ever did.

A third test is afforded by the rate of wages. Professor Hadley's 'Connecticut labor report' shows that in Connecticut the rate of wages was the same in 1885 as in 1880: hence Connecticut operatives earn as many gold dollars now as they did in 1880.

Up to the present time we have actually had the gold standard, since the value of our silver dollars has been kept up to that standard by restricting their coinage. Were we to make the coinage of silver free on the present basis, it would cause a sudden and disastrous fall of twenty per cent in the standard. It is clear to me that this should not be permitted. If any more silver is coined, each dollar should contain a dollar's worth of metal, as measured by the standard which has prevailed during the past ten years; that is, the dollar should contain about 520 grains of standard or 468 of pure silver. I think all parties might well agree on this policy for the present. But they should all unite in demanding the creation of a government commission, composed of men wholly above the ordinary influence of politics, to determine how the standard dollar is actually changing when compared with human labor, and to make known the results of their investigation from time to time. SIMON NEWCOMB.

[1] The table on which this is founded is given in my Principles of political economy, p. 211.

II.

THE so-called 'silver question' is one of the most complicated and difficult issues in our politics now pressing for solution. It has excited an immense amount of debate which has been partisan and ignorant, even beyond the ordinary run of political discussion. This arises from a number of circumstances, two of which are especially important; viz., (1) that the decision of the matter involves pecuniary interests of enormous extent, and (2) that some of the most important facts necessary to an intelligent decision are not attainable by any means now within our reach. The lack of accurate knowledge has led many to indulge in the most unwarranted flights of fancy, while the feeling that one line of action or the other might interfere with vested interests has lent the personal element so visible in all debates on the subject.

I can do but little, in the space accorded me, toward discussing the question in its broader aspect, and shall therefore limit myself to a criticism of some of the most common arguments advanced by those who oppose the re-establishment in this and other countries of the so-called double standard.

1. The attempt is made, by those who oppose the re-establishment of the so-called double standard, to cast a slur upon their opponents by representing them as quacks who desire to try dangerous experiments on the body of a healthy patient. This is very good rhetoric, but very poor science. It is only within about fifteen years that any general experiment has been made in the civilized world to substitute a single gold standard for the so-called double standard. Since that time it would seem as if there were but one phenomenon common to all civilized nations, and that is, commercial and industrial depression, — depression in which protection and free-trade countries, republics and monarchies, small and large states, manufacturing and agricultural communities, have alike shared. Labor difficulties, agricultural ruin, commercial decay, form the subject of numerous reports and commissions in all European countries. In a word, the patient is not in a healthy condition at all. In fact, it would appear, on a close examination, as if he were in a very bad way indeed; and it is not by any means clear that his present sad state is not greatly aggravated by the attempt which the gold doctors made some fifteen years ago to discard the treatment which had prevailed in this sphere for centuries previous. So far, then, from being open to the charge of wishing to make unnecessary experiments, the silver doctors may claim that they merely ask for a return to a course of life under which the industry of the world had developed up to 1870,

and from which the gold doctors persuaded the world to depart at that time, with the unsatisfactory result now before us.

2. The attempt is also made to make the advocates of bimetallism in this country appear as favoring a breach of faith. This is, of course, a serious charge, and is deserving of careful consideration. We began in this country with the system of so-called double standard under which a man might pay his debts, either in gold at the rate of 24.75 grains of pure gold to the dollar, or in silver at the rate of 371.25 grains of pure silver to the dollar. This plan continued until 1834, when the amount of pure gold was changed to 23.20, and in 1837 to 23.22, silver remaining unchanged. It was expected, of course, that under this system the debtor would use the cheapest metal, and would pay in gold or silver, according as it was easier for him to get 23.22 grains of gold or 371.25 grains of silver in the form of dollars. This device was deliberately adopted in 1794, after full discussion, as being calculated to further the monetary and industrial interests of the country by keeping up the supply of money. It was continued without change until 1873. As a result of the change in valuation of the gold coin in 1834, it was cheaper for the debtor to pay his obligations in gold than in silver; and the latter metal disappeared from circulation, leaving a currency, so far as it was metallic, of gold alone, if we except the token-silver currency, which was a legal tender only to five dollars.

In 1873 this option of paying either in gold or silver was taken from the debtor by a modification of our coinage laws. About the same time the value of silver began to fall. Under a metallic currency, this would have led to the payment of debts in silver, if the law conferring the option of paying debts in either silver or gold had not been repealed in 1873. All debts contracted prior to 1873 had been contracted under this option. This option was a part of the contract; and the debtor had a perfect right to complain if the law interfered to take it away, and thereby practically increase the burden of his obligation. Legally speaking, then, the debtor had the right to insist that he should have the option of paying in silver; and all talk about the debtor trying to evade his obligations, or taking refuge behind the law, and therefore deserving reprobation, is not to the point. He is simply trying to do what our laws encouraged him to do up to 1873, with the idea that his taking advantage of the law would further all interests in the country by forcing a recourse to the cheaper metal when one of them became too dear.

The case is still further complicated by the fact that the general demonetization of silver hastened its fall in price, thus widening the distance between the value of gold and silver. The creditor class pointed to this great disparity, which they had themselves increased by their influence in government, as a proof of the great injustice which would be done by continuing the option of paying in silver. The debtors answered, that, if they had been allowed to exercise the option which existed when the debt was contracted, this would have been done as soon as silver was the least bit lower than gold, and the consequent use of silver would have prevented its fall. The argument, so far as the case of creditor *vs.* debtor is concerned, may be considered about even. The creditor is always trying to induce the government to adopt a policy (i.e., to try experiments) which will increase the burden of existing obligations; and when any attempt is made to force the government to give up such a policy once adopted, the creditor indulges in much loud talk about the danger of experimenting with the currency, and interfering with vested interests, and frightening away capital, etc. The debtor takes the opposite ground exactly; and one may be set over against the other with the remark that the money-lending class has never been so distinguished for truth-loving or disinterestedness, that we are justified in accepting their statement of the case to the extent which is characteristic of our industrial society.

3. Looking at the question from the stand-point of the permanent interest of society as distinguished from the immediate relation of debtor and creditor, it is certainly not by any means proven that we have yet reached such a stage of economic development as would enable us to get along with gold alone in our currency. A persistent and continued fall in prices is the same disturbing influence in our social and industrial economy, whether it come from a scarcity of gold or a contraction of credit; to which latter cause some monometallists ascribe the late fall in prices. The attempt is made to cast a slur upon the 'silverites' by calling them inflationists, as if to be an inflationist were the greatest of monetary sins. It would seem to be a sin of the same kind, and of even greater magnitude, to be a contractionist, since a policy of slow contraction in the world's currency is certainly productive of far more harm to the world's economy than the process of slow inflation which might occur under the action of a so-called double standard.

It is agreed by most economists that the ideal money will be stable in value. Many economists think that by a double standard a greater fixity of value may be attained than by a single standard. The fluctuations may be more numerous, but will

not be so great. All agree that we have not yet found an ideal standard in this respect. Every material which has ever been adopted as money varies in value continually, either falling or rising, and thus causing a consequent shifting of property from the hands of one class to another, and practically producing the same results as a contraction or inflation of the money-supply. We must choose, then, between an appreciating or depreciating standard, between a policy of contraction or one of inflation. This is purely a practical question, and is one mainly of degree. A high degree of inflation may be more injurious than a low degree of contraction. But as between a ten per cent contraction, for instance, and a ten per cent inflation, of the world's metallic currency at the present time, I have no hesitation in giving it as my opinion that the former would be of enormously greater damage to our modern society than the latter. This is, of course, a very different question from that involved in the contraction or inflation of the paper currency of a single country.

A system of contraction, an appreciating world currency, means, under ordinary circumstances, a world-wide industrial depression. It means an increasing burden of debt, "the cherishing of a fortune made at the expense of a fortune making," the encouragement of the non-productive at the expense of the productive classes, the injuring of those who live by current labor for the benefit of those living on past labor, the giving to the past a firm grip on the throat of the present; it means, in a word, stagnation of business, idleness and poverty, to the full extent of the influence of changes in the currency on trade and industry.

4. It is claimed that such an inflation of the currency as would result from a return to the double standard would injure the wage-receiving class. There is little doubt that the laborers would be among the last classes in the community to adapt themselves to the inevitable change incident to an inflation of the currency. Wages would be among the last things to rise. Still there are worse things than a failure of wages to rise correspondingly to rise in cost of living; as, for instance, falling wages, and diminishing opportunity to receive any wages at all, which has been rather a characteristic of the last dozen years the world over.

5. It is sometimes said, that, if we are to go back to a double standard, we should at least take the market ratio now prevailing, and increase the amount of the silver in the dollar proportionally. This would not be advisable, for the simple fact that it is highly probable that much of the present depreciation of silver, if we allow that it has depreciated at all, is owing to the fact that it has been discarded from the circulation. Restoring it to its old place by the side of gold will tend to restore its value, and to adopt the ratio now prevailing would be likely to prove a gross mistake. Neither a due respect for pecuniary obligations, nor a proper regard for the facts of history, would allow any such compromise.

6. Finally, we may say that the whole question is discussed too much from the supposed immediate effect of a restoration of silver, and not enough from its permanent tendencies. It is claimed that a return to a double standard will end in a commercial crisis, in which values will be enormously disturbed, and the whole industrial world will be thrown into confusion. Even if this be granted, it does not by any means prove that we should not return to the old system, since the evil effects of continuing the present policy may be infinitely greater. Stagnation of business, increase of burdens on the productive classes, by a continued appreciation of debts, are likely to prove more ruinous by far to national welfare than the speculation, disturbance of value, and scaling of debts, incident to the comparatively slight inflation which would follow a restoration of the silver standard, even at the old ratio, provided it were general.

E. J. JAMES.

III.

1. IT was supposed by many people that the act of Feb. 28, 1878, by the terms of which the present coinage of silver dollars is continued, would keep up the price of silver, which by that year had fallen from the old and normal price of about 60d. per ounce (English standard, 37-40 fine) to 52 9-16d., indicating a change in the ratio of gold to silver from about 1:15.5 to 1:17.92. Of course, the Bland bill was not passed solely by congressmen who had this opinion,[1] since it was also advocated by inflationists and silver-owners. But I propose to address those who, without any improper or pecuniary interest involved, believe that the use of silver on a large scale by the United States is desirable. These are honest people, and deserve something else than invective. They believed that the action of the United States would aid somewhat in restoring the value of silver, and they felt, and still feel, that the disuse of silver was a great calamity to the vast world of industry here and abroad.

Now, what has been the effect on the value of silver, of the coinage of $24,000,000 a year by the United States since 1878? Has it raised the value of silver? No, not in the least. On the contrary,

[1] I have given somewhat fully the reasons which brought about the passage of this act, in my History of bimetallism in the United States, chap. xiii.

silver has continued to fall in price since our legislation, until it is now permanently selling at as low a price as has ever been recorded, even in the exceptional period of July, 1876. The lowest point ever reached in the silver panic of 1876 for a few days was 46 3-4d. per ounce; but since September, 1885, it has steadily remained about or a little below that point. In other words, silver has fallen about eleven per cent more since the act of 1878 was passed. The supposed effect of that legislation, then, has never been produced, and the act ought not to be retained on the ground that the coinage of $24,000,000 a year can prevent the decline in the value of silver.

2. It will be said, however, by some, that this decline in the price of silver is a decline relatively to gold alone, and that since the values of articles other than silver have also fallen, relatively to gold, since 1873, we must declare that the value of gold has increased, and that the value of silver has not fallen. Now, no one can deny, that, when gold prices fall, the value of gold is increased: that has happened even when the supply of gold was rapidly increasing, as in the panic year of 1857. But I cannot think that there is any evidence to show that the fall of prices since 1873 has been due to the scarcity of gold, as has been asserted. If gold has greater purchasing-power owing to a fall of prices, that does not necessarily imply any conclusion whatever as to the scarcity of gold for the uses of trade. To say that, because prices rise or fall, there is a greater or less quantity of metallic money capable of being used, is, in my opinion, to commit a grave economic error. It certainly overlooks the practical business habits of the commercial world. While impossible to offer full reasons in so brief a paper in favor of my position, I can at least outline my ideas in a general way.

3. Prices at any given time are quite as much the result of credit as of the quantity of metallic money. As J. S. Mill said, "In a state of commerce in which much credit is habitually given, general prices at any moment depend much more upon the state of credit than upon the quantity of money." When credit in its various forms is expanded in a time of commercial activity just preceding a crisis, we all know to what great heights the prices of almost all articles can be carried. Purchasing-power in any form, whether money or credit, is used to buy goods, and is not caused by the existence of a few speculators, but by the state of mind throughout the community. And we know also, that, when the crisis comes, prices fall irrespective of the quantity of money. Of such changes, however, an objector might say that they are temporary, while the fall of prices since 1873 has been so prolonged that it cannot be due to temporary causes. But varieties of credit-devices, by which goods are exchanged against each other without the use of metallic (or even paper) money, continue in permanent use. I can only mention one of these by way of illustration, — the check system. Receiving $10,000 in money, as a manufacturer of cotton goods, I deposit it to my order in a bank. When I want to pay B for raw cotton, I send him a check for $10,000. B now owns the right to draw the deposit, and he pays C by a check for $10,000 for machinery; and D and E follow the same method of payment. During this procedure no money has been drawn, but the deposit served as the basis for transactions to the amount of, perhaps, $50,000 or more. The check, as a credit-device, was purchasing-power, and, when offered for goods, affected prices as much as the offer of gold would have done; and, as transactions increase with the growth of wealth and population, goods are exchanged for each other without the use of money by such devices as the check and clearing-house system, through the aid of banks, to a surprising amount. In New York alone, goods are exchanged for each other annually through the clearing-house, of a value much greater than that of the whole national debt of the United States (the sum exclusive of clearing-house balances, which are paid in money), without the use of a single cent of money, either gold, silver, or paper. This shows, briefly, how absurd it is to suppose that the amount of gold ought to increase in proportion to the increase of population or wealth: for in prosperous years the clearings increase; that is, the more the goods to be exchanged, the more the system is used. I cannot have space in this paper to discuss this in full, nor refer to the prevalence of the system on the continent of Europe.

What I wish to illustrate is, that the level of prices depends, not solely on the quantity of money, nor on credit, but on both combined, and that a change in prices does not imply a change in the quantity of money. I have referred only to checks. There are many other forms of credit in constant and general use, such as bills of exchange, paper money, and book credit (or 'trust,' as it is sometimes called in retail buying), and all have a great influence on prices. If prices fall, that single phenomenon, therefore, does not convince me that gold is scarce; and I do not see how it can convince anyone else.

4. There is good evidence, moreover, to show, that, in the period when it was claimed that gold was appreciating because of its scarcity, there was no lack whatever of gold. This is to be found in the rate of discount at the Bank of Eng-

land and at the great banks of the continent. As every banker knows, whenever there is an evident disposition to draw gold from the bank reserves of Europe, the withdrawals of specie lower the proportion of the reserves to the immediate liabilities (which are, except at the Bank of France, chiefly deposits). This alteration requires such an increase in the rate of discount as will ward off some of the demands for new loans, and allow the stream of maturing loans to fill up the reserves. The rise in the bank-rate is an evidence of a fear that the gold reserve is too low, or may fall too low. The London financial market is the chief one of the world, and the Bank of England rate is its sensitive barometer. What were the facts? In the four years from 1874 to 1877 (inclusive), during which year silver fell so exceptionally, the rate of discount at the Bank of England averaged 3 1-8 per cent. There was no evidence whatever of a difficulty on the part of any great bank in keeping a plentiful supply of gold in its cash reserves; and yet during this time Germany was supplying herself with $400,000,000 of gold to carry out her currency reform, and France was accumulating about $180,000,000, in addition to her previous stock, in order to resume specie payments (Dec. 31, 1877).

It may be said in reply that the rate of discount does not depend on the supply of money, but on the supply of loanable funds. This, in the long-run, is true; but if, during this period, there had been any scarcity of gold, any deficiency of the quantity in comparison with the demand for it, it is inconceivable that during the process of 'grasping' for it there should have been no serious change in the rates of discount.

5. Not only does there appear to be no evidence of a scarcity of gold since 1873, as shown by the absence of any difficulty experienced by the banks in collecting and keeping sufficient reserves (while in the United States never in the history of the national banks have they held larger gold reserves than of late), but the facts of the production of gold since 1850 give every reason to suppose that there is an abundance now in existence. The facts of production may be briefly summed up as follows: —

[000,000 OMITTED.]

Period.	Gold.	Per cent.	Silver.	Per cent.
1493–1850	$3,314	43 9	$6,742	74.4
1851–1883	4,233	56.1	2,318	25.6
Total	$7,547	100.	$9,060	100.

It will appear from this that in the 33 years since 1850, and to 1884, not only was the production of gold equal to all that produced in the 358 years from the discovery of America to 1850, but it was even greater by almost a third. And it is more than probable that the existing stock[1] in 1848 was not only doubled, but one-half more than doubled. To 1840 the annual production of gold was about $14,000,000, roughly speaking; in 1841–1850, $38,000,000; while in 1881–1884 it averaged about $100,000,000. In the exceptional years between 1850 and 1860 the production was greater than it is now; but it is still two and a half times what it was in 1848.

In short, there is not the least doubt in my mind that this very abundance of gold was the cause of the fall in the value of silver. Both metals being in use for money, when the better became more plentiful, it drove the poorer out of use, — just as steel rails are driving out iron rails on our railways, — because gold is a better and more reliable tool of exchange than silver. On the ground, therefore, of a scarcity of gold, there is no reason whatever, in my opinion, why the coinage of silver should be continued. The theory that there is a vacuum created by the lack of gold, and which must be filled by the coinage of silver in order to prevent prices from falling, is certainly not tenable.

6. The fall of prices can be explained by causes wholly independent of the quantity of gold in existence, and connected with the contraction of credit, the fall of profits due to increased competition in certain branches of industry, large production, and the introduction of new processes and improved machinery; and, unless it were absolutely certain that the silver men were correct, it would be a bold and unwarranted act of theirs, on the basis of a mere fanciful supposition in regard to the dearness of gold, to experiment on the finances of a great country when a blunder might involve disaster to our whole business prosperity. To lead us to a single silver standard, on the mere theory that gold has 'gone up,' is a piece of statesmanship which should be treated with unequivocal condemnation. Even before we come to the single silver standard, the uncertainty in regard to what the future may bring forth, caused by the continued coinage of silver dollars, is injurious to all legitimate business calculations. Uncertainty and distrust destroy all initiative. The silver-money doctors are dealing with a very complicated organism, and, if their diagnosis is incorrect, persistence in their rude treatment will be of serious damage to the financial body.

J. LAURENCE LAUGHLIN.

[1] Newmarch estimates the existing stock in 1848 at $2,716,000,000 of gold, and $3,880,000,000 of silver. Such estimates, however, are only of the nature of guesses: there is nothing accurate about them.